



THE PLANKTON NEWS



THE NEWSLETTER OF THE SOUTH CAROLINA PHYTOPLANKTON MONITORING NETWORK

Volume 2, Issue 1

May 2003

SCPMN Data Available on Web Site

Qualitative data is available on the SCPMN web site for each school, citizen, and park facility volunteer group. In addition to the raw data, Geographic Information Systems (GIS) monthly map layouts for two potentially toxic species, *Dinophysis* and *Pseudo-nitzschia*, can also be displayed from the web site. Additional map layouts are available for four other species on the SCPMN data sheet (*Akashiwo sanguinea*, *Ceratium*, *Chaetoceros*, and *Protoperdinium*). Raw data and map layouts will be updated monthly.

Map layouts were presented at the SC Task Group on Harmful Algae meeting in March 2003. The ability to download this data will further promote the understanding of harmful algae in South Carolina to both the scientific community and the volunteer groups.

INSIDE THIS ISSUE

1	SCPMN Data Available on Web Site
1	Project Oceanica – At Sea!
2	Phytoplankton and First Grade Teachers
2	Summary of International Harmful Algae Conference
2	New Volunteer Groups
3	Video Editing
3	Calendar of Events
4	SCPMN Web Site
4	Species Spotlight: <i>Pseudo-nitzschia</i>

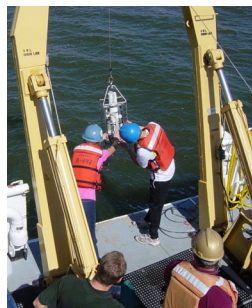
Project Oceanica – At Sea!

South Carolina Phytoplankton Monitoring Network's Community Outreach Oceanographer, Heather Blankenstein, aided Project Oceanica's At SEA! Program. The At SEA! Program is one of three Project Oceanica Programs that focuses on bringing the marine environment to people of all ages and skill levels. The other two Project Oceanica programs include COASTeam and Geology On-line. Heather assisted students in identifying plankton during last year's 2002 fall cruises aboard NOAA's Research Vessel *Ferrel*.



The purpose of these cruises is to actively engage local area high school and college students, as well as middle school science teachers, in a series of data and sampling techniques. During the cruise from Charleston Harbor's Cooper River to offshore beyond the harbor's jetties, students rotate through research stations which include such elements as a CTD cast, sediment grab, plankton tow and identification, and navigation and plotting techniques.

Continued on page 3



Phytoplankton and First Grade Teachers

On Saturday, February 8th 2003, the South Carolina Phytoplankton Monitoring Network (SCPMN) participated in a COASTeam Aquatics Workshop at the South Carolina Aquarium. COASTeam programs primarily focus on the instruction and development of marine related educational materials and activities for teachers from various grades. Each workshop is grade specific, enabling presenters and teachers to concentrate on a specialized area of curriculum. This workshop focused on bringing various aspects of South Carolina's coast into first grade classrooms. COASTeam staff made a special request of SCPMN to participate in this workshop because marine plants are an integral part of South Carolina's first grade Science Curriculum Standards.

This posed an exciting new challenge for SCPMN. Participants included 8 teachers from various elementary schools in Berkeley and Charleston counties. In a one hour session, teachers learned the basic concepts of marine phytoplankton and its ecological roles to the backdrop of the aquarium's great ocean tank. Teachers were then instructed on sampling equipment and how to take a phytoplankton sample. Additional educational materials were provided for in classroom use including an Ecological Puzzle, Fashion a Phytoplankton Activity, and a Marine Plankton Coloring Book.



IF YOU WOULD LIKE TO RECEIVE THE *PLANKTON NEWS* BY EMAIL, PLEASE SEND A REQUEST TO KATE TO MAKE THIS CHANGE FOR THE NEXT ISSUE.

Summary of International Conference on Harmful Algae

In October 2002, Kate Schaefer and Steve Morton along with 17 additional NOAA Marine Biotoxins members attended the Xth International Conference on Harmful Algae in St. Petersburg, Florida. There were 900 attendees from 48 countries present at the conference.

A great deal of interest was shown by other states and countries to begin phytoplankton monitoring networks similar to SCPMN. Two posters were presented using the data generated by SCPMN volunteers:

The Use of Volunteers to Monitor Phytoplankton

Observation of Prorocentrum lima in South Carolina

During the conference, a meeting was held for the various state phytoplankton monitoring network (PMN) directors and coordinators. General information on state monitoring networks was exchanged along with a desire to continue communication through this network to promote future growth of these programs.

Thanks to all of the volunteers for their hard work and dedication to make these presentations possible.



New Volunteer Groups

SCPMN is still growing with a new total of 26 school groups, 10 citizen groups, and 4 parks. These new groups include:

School Groups: Burke High School (Connie Leverett and Joe Laban), Fort Dorchester High School (Deborah Westbrook), Lincoln High School (Bob Scott), Morningside Middle School (John Murray, Nancy Parson, and Theron Sewatrd), Pinewood Prep (Sherry Schumann)

Citizen Groups: Kiawah Island (Janet Ellis, Carrie Manson, and Norm Shea), Master Gardeners (Gary Forrester, Bill Hamilton, and Cathy Smith), Seabrook Island (Kyle Hodnett), South Carolina Aquarium staff and volunteers (Rachel Kalisperis, David Wilkins, Carolyn Anderson, Patricia Henley, and Charles Kearns)

VIDEO EDITING

A species video was created by Amanda Howard at Hunting Island State Park to assist in the training of new volunteer groups as well as to strengthen identification skills of current volunteers. In addition to the water sample collected from the fishing pier on Fripp Inlet, some phytoplankton cultures from the NOAA Charleston laboratory were filmed. Volunteers have been viewing and studying this video since the refresher course held in August 2002. We are currently searching for dedicated SCPMN volunteers to edit this video. The video will then be digitized to CD and copied for all current volunteers to assist in phytoplankton identification. Please contact Kate if you are interested in working on the phytoplankton video.



With samples in hand, students and teachers were asked to bring their data home for analysis. Each group is then asked to give a short community seminar to present their observations and conclusions.

Included in the 89 total cruise participants were SCPMN volunteers from 8 local area high schools.



During several of the cruises SCPMN volunteers found potentially toxic species of *Pseudo-nitzschia* and *Dinophysis*. SCPMN staff are excited to begin working with new contacts and congratulate current volunteers on a job well done. For more information on Project Oceanica or to view the data from the fall 2002 cruises, visit the Project Oceanica web site at:

<http://oceanica.cofc.edu>

CALENDAR OF EVENTS

SOUTH CAROLINA MARINE EDUCATORS ASSOCIATION (SCMEA) CONFERENCE

PLACE: MYRTLE BEACH, SC

TIME: MARCH 14TH - 16TH, 2003

Heather and Kate attended this conference to promote the success of SCPMN.

NATIONAL MARINE EDUCATORS ASSOCIATION (NMEA) CONFERENCE

PLACE: WILMINGTON, NC

TIME: JULY 20TH - 24TH, 2003

Heather and Kate will present the design and development of SCPMN to national science educators.

A total of 933 students have been trained as SCPMN volunteers from August 2001 until May 2003.

THE PLANKTON NEWS

Direct all correspondence to:
Kate Schaefer, Coordinator
SCPMN
NOAA/NOS
Marine Biotoxins Program
Hollings Marine Laboratory
331 Fort Johnson Road
Charleston, SC 29412

Phone (843) 762-8811
Fax (843) 762-8737

Director of SCPMN
Steve Morton

Coordinator of SCPMN
Kate Schaefer
Katherine.Schaefer@noaa.gov

Community Outreach Oceanographer
Heather Blankenstein
Heather.Blankenstein@noaa.gov

Web Site Coordinator
Kimberly Nowocin
Kimberly.Nowocin@noaa.gov

SCPMN WEB SITE

NEW WEB SITE ADDRESS:

www.chbr.noaa.gov/Coastal Research/SCPMN/

Check out the new revisions to our web site.

New Sections:

Submitted Data

Project Oceanica

Biographies of each participating school/group and group pictures (If you do not see a bio for your volunteer group, please submit a short bio to Kate)

Maps of sampling sites and monthly data collection

Current and back issues of THE PLANKTON NEWS

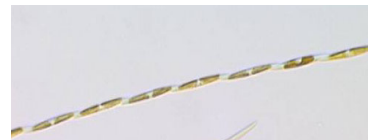
On-line data entry (to be added)

Fact Sheets on Human Health Syndromes (to be added)

Posters from Conferences (to be added)

Please send any web site questions or comments to Kimberly Nowocin at Kimberly.Nowocin@noaa.gov.

Kate Schaefer, Coordinator
South Carolina Phytoplankton Monitoring Network
NOAA/NOS/Marine Biotoxins Program
HOLLINGS MARINE LABORATORY
331 Fort Johnson Road
Charleston, SC 29412



Species Spotlight

Pseudo-nitzschia

Species Introduction

The diatom, *Pseudo-nitzschia*, has been on the SCPMN species list since the beginning of the program in January 2001. *Pseudo-nitzschia* produces domoic acid and is the causative organism for Amnesic Shellfish Poisoning (ASP). Common symptoms of ASP include permanent loss of short term memory, dizziness, disorientation, nausea, and vomiting.

Who found *Pseudo-nitzschia*?

The first volunteer group to correctly record a rare abundance of *Pseudo-nitzschia* was Linda Lentz's Wando High School class in September 2001. *Pseudo-nitzschia* has been found in rare to abundant abundance ratios at 39 sampling sites. *Pseudo-nitzschia* has been recorded on 293 submitted data sheets from September 2001 to April 2003. To date, no blooms of *Pseudo-nitzschia* have been reported in SC.

Be sure to check the next issue of THE PLANKTON NEWS for another new "Species Spotlight"!
